IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: YESHURUN=3A

In re Application of:	)	Art Unit: 1771
Yehoshua YESHURUN et al	)	Examiner: U. RUDDOCK
Appln. No.: 09/904,585	)	Washington, D.C.
Filed: July 16, 2001	)	Confirmation No. 3898
For: LIGHTWEIGHT ARMOR AGAINST FIREARM PROJECTILES	)	March 11, 2005

RESPONSE

Honorable Commissioner for Patents
Customer Service Window
Randolph Building, Mail Stop Amendment
401 Dulany Street
Alexandria, VA 22314

Sir:

The Examiner's action dated December 15, 2004, has been received, and its contents carefully noted.

The rejection of claims 14-33 as unpatentable, under 35 U.S.C. 103, over Blommer in view Fischer is respectfully traversed for the reason that the novel structures defined in the rejected claims are not in any way suggested by any reasonable combination of the teachings of the applied references.

The present invention is directed to an armor assembly for protecting a body disposed behind the assembly from an oncoming firearm projectile striking the assembly. As

defined in independent claim 14, the armor assembly includes a front panel having at least one armor layer made of a material selected from PMMA and epoxy resin and the armor layer is slantingly oriented relative to the expected trajectory of the oncoming projectile, with the armor layer constituting means for deflecting the projectile from its original course.

Independent claim 32 contains the same limitations, and further specifies that the armor assembly comprises a front panel composed of a plurality of plates, each plate being made of PMMA or epoxy resin.

Independent claim 33 contains similar recitations, but specifies that the front panel has a front surface and that the at least one armor layer is coextensive with the front surface.

Thus, in all of the independent claims, it is specified that it is the armor layer, or the plurality of plates, made of PMMA or epoxy resin, that is slanting in respect to the expected trajectory of the oncoming projectile and that acts to divert the projectile when impacting the plates.

As a first consideration, it is submitted that the two applied references are not even found in the same

technical field as one another and are intended to serve substantially different purposes.

Specifically, Blommer is directed to an explosive attenuating structure that is intended to be installed between projectiles when the projectiles are being stored for future use. These structures are not intended to provide protection against oncoming projectiles and are simply intended to isolate shockwaves produced by a projectile that is accidentally detonated. This reference clearly does not disclose PMMA or epoxy resin armor layers or plates that are slantingly oriented relative to the expected trajectory of an oncoming projectile and that constitute means for deflecting the projectile from its original course. Given the disclosure appearing in this reference, those skilled in the art would never consider using any of the structures disclosed therein in such a manner and for such a purpose.

It is noted that the PMMA layers of Blommer simply provide shock attenuation as well as structural support for an associated rigid foam and certainly do not act to divert anything from its trajectory.

The secondary reference, Fischer, on the other hand, does disclose a laminate that is intended to provide protection against oncoming projectiles. However, this

reference, like the primary reference, does not disclose a structure in which any layer, and particularly a layer made of PMMA or epoxy resin, is slantingly oriented relative to the expected trajectory of an oncoming projectile or that constitutes means for deflecting the projectile from its original course.

The very fact that the two references are found in essentially different fields and perform respectively different functions clearly supports the conclusion that one skilled in the art would have no reason to combine their teachings in any particular manner, and specifically in the manner suggested by the Examiner.

Furthermore, there is no prior art suggestion or evidence to indicate that any purpose would be served by combining the teachings of those references. Specifically, the prior art does not provide any evidence or suggestion that would lead one to believe that any modification of the structures disclosed by Blommer in accordance with any teaching of Fischer would result in an explosive attenuating structure "that has increased explosion attenuation", as alleged by the Examiner. In the absence of such prior art evidence or suggestion, there can be no proper basis for concluding that it would be obvious to combine the teachings

of the applied references. It is well recognized that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. MPEP 2142 and *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991).

Finally, the fact is that even if the teachings of the references were combined, the resulting structure would not be one in which, as specified in each of the independent claims now in this Application, an armor layer or plate (made of PMMA or epoxy resin) is slantingly oriented relative to the expected trajectory of the oncoming projectile and constitutes means for deflecting the projectile from its original course.

In the explanation of the rejection, the Examiner acknowledges that Blommer does not disclose this feature, and asserts that Fischer teaches "disposing the front ply in the direction of an expected impact". Of course, disposing a ply, or layer, or plate, in the direction of an expected impact is totally different from orienting it slantingly relative to the expected trajectory of the projectile. Disposing a front ply, or any surface, in the direction of an expected impact would be clearly understood by anyone skilled in the art to signify that the surface is disposed at right angles to the trajectory of the projectile. An object having such an orientation would

not serve to deflect or divert a projectile, as is specified in each of independent claims 14 and 32.

It is noted, in this connection, that the Examiner has not even asserted that either of the references discloses the features of a slanting orientation or of deflecting or diverting a projectile, which means that the rejection has not taken into account all of the limitations appearing in the rejected claims, as is required for a proper rejection. Thus, there has not even been an assertion that the references teach or suggest these features. Attention is again directed to MPEP 2142, as well as 2143.

In addition, with specific reference to claim 32, the Examiner acknowledges that neither applied reference discloses a plate made of PMMA or epoxy resin. Furthermore, the Examiner has cited no prior art evidence indicating that the provision of such a plate would "create a device having increased explosion attenuation". Thus, here again, in view of the applicable standards of patent examination, the rejection has not established a *prima facie* case of obviousness.

It is additionally submitted that the features defined in at least dependent claims 17, 18, 23, 28, 30 and 31 further distinguish over the prior art and that no explanation

of reasons for rejecting those claims was presented in the action.

In view of all of the above considerations, it is submitted that the prior art relied upon and the explanations presented in support of the rejection do not provide proper support for a rejection under 35 U.S.C. 103 and it is therefore requested that this rejection be reconsidered and withdrawn, that claims 14-33 be allowed and that the Application be found in allowable condition.

If the above response should not now place the application in condition for allowance, the Examiner is invited to call undersigned counsel to resolve any remaining issues.

Respectfully submitted,

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